

**JACOBSEN PILOT SERVICE, INC.  
LOS ANGELES AND LONG BEACH HARBORS**

===== PILOT SERVICE =====  
**U.S. FEDERAL LICENSED PILOTS**

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LONG BEACH, CALIFORNIA 90832-2248

January 23, 2020

Dr. Clarissa Anderson  
Executive Director  
Southern California Coastal Ocean Observing System  
Scripps Institution of Oceanography  
9500 Gilman Drive, 0206  
La Jolla, CA 92093-0214

Dear Dr. Anderson:

On behalf of JACOBSEN PILOT SERVICE, INC., I enthusiastically endorse the valuable data and services provided by the Southern California Coastal Ocean Observing System (SCCOOS) at the Scripps Institution of Oceanography, University of California San Diego.

Our Pilots have been using this valuable information for many years now. We navigate some of the largest Very Large Crude Carriers (VLCC) that come into American waters and it's critical for us to monitor the swells closely so we can reduce the chance that the vessel will pitch or roll to a point of touching bottom. Also, during storm conditions we use the offshore wave data to predict the wave patterns at our Pilot Boarding area.

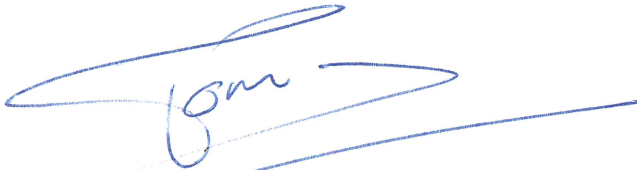
A successful project that we have completed is the PROTIDE program. This predictive modeling program takes information from CDIP offshore wave buoys and calculates if it is safe for us to bring in deep draft (VLCC's). This project is a partnership between SCCOOS/CDIP, Port of Long Beach, State of California (OSPR), Marathon Oil Company, the Marine Exchange, and our piloting company. The goal is to assure that our under keel clearance along the entire route into the port is safe at any given swell condition. Pro-Tide has proven effective and will be used continuously on VLCC's and most likely on other types of ships too.

As a science-based decision support system, the Ocean Observing System's work interactively with local, state and federal agencies, resource managers, industry, policy makers, educators, scientists and the general public to provide data, models and products that advance our understanding of the current and future state of our coastal and global environment. SCCOOS focuses on coastal observations and product development to provide information necessary to address issues marine operations, coastal hazards, climate variability and change, and ecosystems, fisheries, and water quality

I understand that SCCOOS is funded primarily by the National Oceanic Atmospheric Administration (NOAA). Sustained funding for SCCOOS will be crucial to the maintenance of the program's ocean observing network and to the continuity of the important data products and services that these observations enable.

Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tom', with a large, sweeping underline that extends across the page.

Captain Thomas A. Jacobsen  
President / CEO